

MULTIPOINT AND ONE POINT BACK PRESSURE TEST FOR GAS W. O. L. C. D.

Type Test ☒ Initial ☐ Annual ☐ Special				Test Date 11-1-82		ARTESIA, OFFICE	
Company Hondo Oil and Gas Company				Connection			
Pool N. Under Turkey Track Morrow No. Gas				Formation Morrow		Unit	
Completion Date 10-25-82		Total Depth 11013		Plug Back TD 10916		Elevation GL 3503.5	
Casing Size 5 1/2		Wt. 17#		Set At 4.892		Well No. 1	
Perforations: From 10798 To 10830		Set At 11006		Perforations: From 10747 To 10830		Unit Soc. Twp. Rge. N 23 T18S R28E	
Type well - Single - Bradenhead - G.G. or G.O. Multiple Single Gas				Packer Set At 10747		County Eddy	
Producing Thru Tbg.		Reservoir Temp. °F 173 @ 10814		Mean Annual Temp. °F 60°		State New Mexico	
L 10747		H 10747		Gg .652		Prover 4"	
				% CO ₂ .693		% H ₂ S -0-	
				% N ₂ .468		Meter Run 4"	
						Taps Flg.	

FLOW DATA							TUBING DATA		CASING DATA		Duration of Flow
NO.	Prover Line Size	X	Orifice Size	Press. p.s.i.g.	Diff. hw	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
Sl							2159		Pkr.		118 Hrs.
1.	4 x 1.750			488	7.5	86	2078	72	"		1 Hr.
2.	4 x 1.750			498	17.0	72	2000	73	"		1 Hr.
3.	4 x 1.750			514	59.0	86	1765	73	"		1 Hr.
4.	4 x 1.750			633	77.5	86	1571	72	"		1 Hr.
5.											

RATE OF FLOW CALCULATIONS

NO.	Coefficient (24 Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor Fg	Super Compress. Factor, Fpv	Rate of Flow Q, Mcfd
1	14.93	61.31	501.2	.9759	1.282	1.042	1193
2	14.93	93.22	511.2	.9887	1.282	1.048	1849
3	14.93	176.37	527.2	.9759	1.282	1.045	3443
4	14.93	223.79	646.2	.9759	1.282	1.055	4201
5							

NO.	R ₁	Temp. °R	T ₁	Z	Gas Liquid Hydrocarbon Ratio 95.14 Mcf/bbl.
1	.74	546	1.47	.921	A.P.L. Gravity of Liquid Hydrocarbons 57.3 @ 60 Deg.
2	.76	532	1.43	.911	Specific Gravity Separator Gas .652 X X X X X X X X
3	.78	546	1.47	.916	Specific Gravity Flowing Fluid X X X X X
4	.96	546	1.47	.898	Critical Pressure 673 P.S.I.A. P.S.I.A.
5					Critical Temperature 371 R R

* P _c 2956.2 P _c ² 8739.1					(1) $\frac{P_c^2}{P_c^2 - P_w^2} = \underline{3.723}$	(2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{3.005}$
NO	P ₁	* P _w	P _w ²	P _c ² - P _w ²		
1		2842.2	8078.1	661.0	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = \underline{10346}$	<i>Post #D-2</i> <i>11-26-82</i> <i>Camp & BK</i>
2		2761.2	7624.2	1114.9		
3		2528.2	6391.8	2347.3		
4		2341.2	5481.2	3257.9		
5						

Absolute Open Flow 2672 Mcfd @ 15.025	Angle of Slope 50° 5'	Slope, n .837
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Remarks: *Bottom hole pressure @ 10814 via bomb.
Well produced 4.68 bbls. cond. and 0 bbls. water during test.

Approved By Division	Conducted By: Cecil Johnson	Calculated By: J. Cogburn	Checked By: Steve Smith
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Post TD-2
11-26-82
Camp & BK